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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,165	01/02/2002	David Alan Burton	TUC920010058US1	7814

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EXAMINER	
BETIT, JACOB F	

ART UNIT	PAPER NUMBER
2164	

DATE MAILED: 10/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,165	BURTON ET AL.	
	Examiner	Art Unit	
	Jacob F. Betit	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications filed on 21-July-2005, claims 1-45 are amended per applicant's request. Claims 1-45 are presently pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 21-July-2005 has been entered.

Drawings

3. The examiner acknowledges that no objections to the drawings are (or have been) made. A final review of the drawings will be made in the future before the mailing of any Notice of Allowance. If the applicant becomes aware of any errors in the drawings during the course of prosecution of the case, the applicant is asked to submit corrections of these errors.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 7-8, 20-21, and 34-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 7-8, 20-21, and 34-35 each recite the limitation "the determined remote storage location". There is insufficient antecedent basis for this limitation in the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-5, 9-18, 22-31, and 35-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (U.S. patent No. 6,324,581 B1) in view of Nahum (U.S. patent No. 6,898,670 B2).

As to claim 1, Xu et al. teaches a method for controlling and providing access to files maintained at remote storage locations to a source code management system client over a network, the method comprising:

receiving a request, at a server, for checking-out a file corresponding to a filename, from the source code management system client over the network (see column 10, lines 12-14, where it is obvious that a request would include the filename);

determining from the metadata, by the server, a remote storage location address associated with the filename where the requested file is located, wherein the remote storage location address is based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-17, where "history of request patterns" is interpreted as the location the file has been during previous requests);

sending, by the server, the remote storage location address to the source code management system client (see column 10, lines 14-19); and

updating, by the server, the metadata to indicate that the requested file is checked-out and locked (see column 10, lines 14-25).

Xu et al. does not teach

(a) wherein the metadata corresponds to the files and is stored more proximate to the server than to the source code management system client

(b) wherein the one remote storage location address where the requested file is located is more proximate to the source code management system client than to the server

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claims 2, 15, and 28, Xu et al. as modified, teaches wherein the source code management system client and the remote storage location address share a subnet of the network (see Nahum, figure 17, reference numbers 1, 2, 4, and 5).

As to claims 3, 16, and 29, Xu et al. as modified, teaches wherein the one remote storage location address identifies a storage device that is at a geographical location closer to the source code management system client than a location of the metadata (see Nahum, figure 17, reference numbers 1, 2, 4, and 5), and wherein based on the received request the server that received the request for checking out the file from the source code management system client directly communicates the remote storage location address for retrieval of the requested file to the network for transmission to the source code management system client (see Xu et al., column 10, lines 14-19) .

As to claims 4, 17, and 30, Xu et al. as modified, teaches the method further comprising: locking the requested file; returning a response code to the source code management system client indicating that file check-out is successful (see Xu et al., column 9, lines 59 through column 10, line 25).

As to claims 5, 18, and 31, Xu et al. as modified, teaches wherein the request is a first request wherein the file for checking-out is a first file, wherein the response code is a first response code and where a second request is for checking-in a second file, the method further comprising: updating the metadata indicating the requested send file is unlocked; and returning a

second response code indicating that the check-in of the second file is successful (see Xu et al., column 10, lines 17-25).

As to claims 9, 22, and 35, Xu et al. as modified, teaches the method further comprising:

receiving an additional request corresponding to an additional file; updating the metadata and sending a response code to the source code management system client in response to determining that the additional request is one of a lock, an unlock, or a delete request; updating the metadata and sending location of the additional file and the response code to the source code management system client is response to determining that the additional request is one of a check-in or an extract request (see Xu et al., column 10, lines 12-17).

As to claim 10, Xu et al. teaches a method for accessing a file in a source code management system, the method comprising:

sending, from a source code management system client, a first request for checking-out the file to a server (see column 10, lines 12-14);

receiving, at the source code management system client, a storage location address containing the file in response to the first request, and wherein the storage location has been determined from the metadata by the server based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-19);

sending, from the source code management system client, a second request to the storage location address (see column 10-lines 17-19); and

receiving, at the source code management system client, an access to the file from the storage location address, wherein the server updates the metadata to indicate that the file is checked-out and locked after providing the access (see column 10, lines 19-22).

Xu et al. does not teach:

(a) wherein the storage location address containing the file is located more proximate to the source code management system client than to the server;

(b) wherein metadata corresponding to the file is kept more proximate to the server than to the source code management system client.

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claims 11, 24, and 37, Xu et al. as modified, teaches the method further comprising: downloading the file from the storage location address (see Xu et al., column 10, lines 17-19).

As to claims 12, 25, and 38, Xu et al. as modified, teaches wherein a third request is for checking-in the file, the method further comprising: sending a new version of the fide to the storage location address during the checking-in of the file (see Xu et al., column 10, lines 19-25).

As to claims 13, 26, and 39, Xu et al. as modified, teaches the method further comprising:

receiving a first response code from the server in response to the first request (see Xu et al., column 10, lines 14-19); and

receiving a second response code from the storage location in response to the second request (see Xu et al., column 10, lines 17-19); and

receiving a third response code from the server in response to the third request (see Xu et al., column 10, lines 14-19).

As to claim 14, Xu et al. teaches system for controlling and providing access to a file to source code management system clients over a network, wherein remote storage locations are accessible over the network, the system comprising:

means for receiving a request for checking-out a file corresponding to a filename, from a source code management system client over the network (see column 10, lines 12-14);

means for determining from the metadata a storage location address of a remote storage location associated with the filename where the requested file is located wherein the metadata corresponds to the files and wherein the remote storage location address is based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-17);

means for sending the remote storage location address to the source code management system client (see column 10, lines 14-19); and

means for updating the metadata to indicate that the requested file is checked-out and locked (see column 10, lines 14-25).

Xu et al. does not teach:

(a) is stored more proximate to the system than to the source code management system client, and

(b) wherein the remote storage location address where the requested file is located is more proximate to the source code management system client than to the system.

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claim 23, Xu et al. teaches a system for accessing a file in a source code management system, wherein the system is in communication with a server, the system comprising:

means for sending a first request for checking-out the file to the server (see column 10, lines 12-14);

means for receiving a storage location address containing the tile in response to the first request, and wherein the storage location has been determined from the metadata by the server based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-19);

means for sending a second request to the storage location address (see column 10, lines 17-19); and

means for receiving at; access to the file from the storage location address wherein the server updates the metadata to indicated that the file is checked-out and locked after providing the access (see column 10, lines 19-22).

Xu et al. does not teach:

(a) wherein the storage location address containing the file is located more proximate to the system than to the server, and

(b) wherein metadata corresponding to the file is kept more proximate to the server than to the system.

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claim 27, Xu et al. teaches an article of manufacture including code for controlling and providing access to files at storage locations on a network to a source code management system client coupled to a server over the network, wherein the code is capable of causing operations, the operations comprising:

receiving a request, at the server, for checking-out a file corresponding to a filename from the source code management system client over the network (see column 10, lines 12-14);

determining from the metadata, by the server, a remote storage location address associated with the filename where the requested file is located, wherein the remote storage

location address is based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-17);

sending, by the server, the remote storage location address to the source code management system client (see column 10, lines 14-19); and

updating, by the server, the metadata to indicate that the requested file is checked-out and locked (see column 10, lines 14-25).

Xu et al. does not teach:

(a) wherein the metadata corresponds to the files and is stored more proximate to the server than to the source code management system client, and

(b) wherein the remote storage location address where the requested file is located is more proximate to the remote-computer source code management system client than to the server.

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claim 36, Xu et al. teaches an article of manufacture including code for accessing a file in a source code management system from a source code management system client to a server, wherein the code is capable of causing operations, the operations comprising:

sending, from the source code management system client, a first request for checking-out the file to the server (see column 10, lines 12-14);

receiving, at the source code management system client, a storage location address containing the file in response to the first request, and wherein the storage location has been determined from the metadata by the server based on a history of request patterns from a plurality of source code management system clients (see column 10, lines 14-19);

sending, from the source code management system client, a second request to the storage location address (see column 10, lines 17-19); and

receiving, at the source code management system client, an access to the file from the storage location address, wherein the server updates the metadata to indicated the file is checked-out and locked after providing the access (see column 10, lines 19-22).

Xu et al. does not teach:

(a) wherein the storage location address containing the file is located more proximate to the source code management system client than to the server, and

(b) wherein metadata corresponding to the file is kept more proximate to the server than to the source code management system client.

Nahum teaches (a) and (b), see figure 17, reference numbers 1, 4, 5, 6, 1R, and 80; see column 9, lines 31-35; and see column 19, lines 52 through column 20, line 18. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Nahum because they would permit many SANs to be managed remotely and simultaneously (see column 20, lines 14-18).

As to claims 40, 42, and 44, Xu et al. as modified, teaches wherein the source code management system client is a first source code management system client, wherein the first source code management system client and a second source code management system client are included in, the plurality of source code management system clients, wherein the first source code management system client is in a first subset of the network, wherein the second source code management system client is in a second subnet of the network, wherein the remote storage location address sent by the server is in the first subnet of the network (see Nahum, column 20, lines 14-18), the method further comprising:

sending, by the server, an additional remote storage location address that is in the second subnet to the second source code management system client, in response to an additional request from the second source code management system client for checking-out an additional file (see Xu et al. column 10, lines 19-22).

As to claims 41, 43, and 45, Xu et al. as modified, teaches wherein the source code management system client is a first source cede management system client, wherein the first source code management system client and a second source code management system client are included in the plurality of source code management system clients, wherein the source code management system client is in a first subnet of the network, wherein the second source code management system client is in a second subnet of the network, wherein the remote store location address received at the first source code management system client is in the first subnet tithe network (see Nahum, column 20, lines 14-18), the method further comprising:

sending, from the second source code management system client, an additional request for checking out an additional file to the server (see Xu et al., (see column 10, lines 17-19)); and

receiving, at the second source code management system client, an additional remote storage location address that is in the second subnet (see Xu et al., column 10, lines 19-22).

8. Claims 6-8, 19-21, and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (U.S. patent No. 6,324,581 B1) in view of Nahum (U.S. patent No. 6,898,670 B2) as applied to claims 1-5, 9-18, 22-31, and 35-45 above, and further in view of Porcar ("File Migration in Distributed Computer Systems", California Univ., Berkeley. Lawrence, Berkeley Lab, copyright © 1982).

As to claims 6, 19, and 32, Xu et al. as modified, does not teach wherein a table maintains statistics for file usage, the method further comprising:

(a) processing a pattern of requests for the requested file received from source code management system clients at different geographical locations;

(b) determining from the table a plurality of remote storage locations based on the pattern of requests for the requested file;

(c) storing the requested file corresponding to the filename at the determined plurality of remote storage locations; and

(d) saving a correspondence between the requested file and storage location addresses corresponding to the determined plurality of remote storage locations in the metadata.

Porcar teaches (a) and (b), see section 5.2. The Migration Policies; and (c) and (d), see section 5.3. Experimental Results. Therefore it would have been obvious for a person of

ordinary skill in the art at the time the invention was made to have modified Xu et al. to include the teachings of Porcar because the teachings would reduce the traffic an order of magnitude as compared to single-copy policies (see Porcar, 5.4. Conclusions).

As to claims 7, 20, and 33, Xu et al. as modified, teaches wherein the determined remote storage location is at a geographical location that is more proximate to the source code management system client having more requests for the requested file than other source code management system clients (see Porcar, section 5.1.1.6. Distributing the Updates).

As to claims 8, 21, and 34, Xu et al. as modified, teaches wherein the determined remote storage location is selected from the plurality of remote storage locations to minimize a distance the requested file is transmitted between each source code management system client and the determined remote storage location based on the number of requests for the file from each source code management system client (see Porcar, section 5.2. Migration Process).

Response to Arguments

9. Applicant's arguments with respect to claims 1-45 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacob F. Betit whose telephone number is (571) 272-4075. The examiner can normally be reached on Monday through Friday 9 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

jfb
17 Oct 2005

SAM RIMELL
PRIMARY EXAMINER